

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method for serial data communication which transmits and receives data in two-way, comprising:

transmitting data and a separate clock signal from a first control unit to a second control unit, at the same time checking a reception confirmation signal of the second control unit by the first control unit; and

transmitting data and a separate clock signal from the second control unit to the first control unit, at the same time checking a reception confirmation signal of the first control unit by the second control unit by checking the separate clock signal from the first control unit.

2. (Previously Presented) The method according to claim 1, wherein said data transmission process further includes the steps of:

confirming whether data was received, starting the data transmission with a data transmission start signal, and receiving the reception confirmation signal from the second control unit;

recognizing the data reception of the second control unit, and reversing the transmission start signal in order to transmit a next data;

transmitting a transmission permission signal which permits the next data transmission to the first control unit by the second control unit; and

feedback-receiving the transmission permission signal.

3. (Previously Presented) The method according to claim 9, wherein said data reception process further includes the steps of:

receiving a first data from the second control unit and feeding back a signal informing of the reception;

receiving a preparation signal for informing of a next data transmission from the second control unit;

transmitting a data transmission permission signal to the second control unit; and

transmitting the next data from the second control unit after feedback-receiving the data transmission permission signal.

4. (Previously Presented) The method according to claim 2, wherein a size of the transmitted data is adjusted voluntarily in accordance with communication circumstances, and is determined in accordance with a data processing unit of the second control unit.

5. (Original) The method according to claim 2, wherein a transmission error occurs when the reception confirmation signal is not received.

6. (Previously Presented) The method according to claim 2, wherein a point of input time of the feedback signal which informs of the data reception and processing of the first control unit is set in accordance with a processing rate of the second control unit.

7. (Original) The method according to claim 2, wherein the transmitting process of the data reception confirmation signal and the data transmission permission signal is performed more than two times.

8. (Previously Presented) An apparatus for serial data communication, comprising:

two control units connected to each other, each of said control units transmitting data to the other with a data transmission start signal in a data transmission mode, performing repeatedly a data transmission process which feedback-receives a feedback data transmission permission signal and a reception permission signal from one control unit to the other control unit and transmits the data, and transmitting repeatedly a data reception confirmation signal and the data transmission permission signal from one control unit to the other control unit;

four serial buses for performing serial data transmission and clock signal transmission between the two control units, each of said control units transmitting a clock signal separately from a data signal, the data reception confirmation signal being transmitted via the clock signal transmission from one of the two control units to the other of the two control units;

two pull-up operation units for maintaining a control voltage level of the serial buses at a certain level; and

a control voltage matching unit for continuing a voltage equilibrium condition by muting excessive voltage at grounding side when the control voltage level does not coincide with the serial bus due to an operation voltage difference of the pull-up operation units.

9. (Previously Presented) The method according to claim 1, further comprising receiving the data and the separate clock signal from the second control unit by the first control unit, at the same time checking a transmission confirmation signal of the second control unit by the first control unit.

10. (Currently Amended) The method according to claim 1, wherein the step of checking the reception confirmation signal of the second control unit by the first control unit includes checking the separate clock signal from the second control unit by the ~~second~~ first control unit.

11. (New) The apparatus according to claim 8, wherein the one of the two control units transmits the data signal and the separate clock signal to the other of the two control units, and at the same time checks the data reception confirmation signal transmitted via the clock signal transmission from the other of the two control units to the one of the two control units.

12. (New) The apparatus according to claim 11, wherein the other of the two control units transmits the data signal and the separate clock signal to the one of the two control units, and at the same time checks the data reception confirmation signal transmitted from the one of the two control units by checking the separate clock signal transmitted from the one of the two control units.